IN THE CLAIMS

Please amend the claims as follows:

Claims 1-27 (Cancelled)

28 (New): A process for preparing a compound of formula (Ia):

$$\begin{array}{c}
O_2 \\
S \\
N
\end{array}$$

$$\begin{array}{c}
A-Y \\
\emptyset \\
O
\end{array}$$
(Ia)

wherein

the ring P is:

and is a pyrrole ring represented by the following structure:

in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

A is a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkynylene group or a substituted or unsubstituted alkynylene group;

Y is a group having the following formula:

$$W \longrightarrow W \longrightarrow D$$

$$E_1 \qquad E_2$$

in which

E₁ and E₂ each independently is a hydrogen atom or a lower alkyl group;

W represents CH, C= or a nitrogen atom; with the provisos that:

when W represents CH, then m is 0 or 1 and B represents a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group, a group -C(OH)R₂- in which R₂ represents a substituted or unsubstituted aryl group, a group -CHR₃- in which R₃ represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted cyclic or acyclic acetal group;

when W represents C=, then m is 1 and B is a group:

$$=$$

in which the double bond is coupled with W and R₄ represents a substituted or unsubstituted aryl group or a substituted or unsubstituted aralkyl group; and

when W represents a nitrogen atom, then m is 0 or 1 and B is a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group or a group -CHR5- in which R5 represents a substituted or unsubstituted aryl group; and

D represents a substituted or unsubstituted aromatic hydrocarbon group or a substituted or unsubstituted aromatic heterocyclic group; and

l is 0 or 1;

which process comprises:

reacting a compound of formula (VI) with a compound of formula (II),

wherein:

the compound of formula (VI) is:

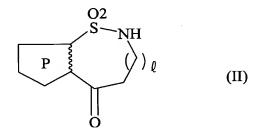
$$X-A-Y$$
 (VI),

where

X is an eliminative group;

A and Y are defined above; and

wherein the compound of formula (II) is:



wherein the ring P and ℓ are defined above.

29. (New) A process for preparing a compound of formula (Ic):

$$\begin{array}{c}
O_2 \\
S \\
N
\end{array}$$

$$\begin{array}{c}
A-Y' \\
\downarrow \\
NOR_1
\end{array}$$
(Ic)

wherein

the ring P is:



and is a pyrrole ring represented by the following structure:

in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

R₁ is a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, or a substituted or unsubstituted aryl group;

A is a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkenylene group or a substituted or unsubstituted alkynylene group;

Y' represents a group

$$W$$
— $(B')_{\overline{m}}$ D

in which

E₁ and E₂ each independently is a hydrogen atom or a lower alkyl group;

W represents CH, C= or a nitrogen atom; with the provisos that:

when W represents CH, then m is 0 or 1 and B' represents a sulfonyl group, an alkylene group, an alkenylene group, a group -C(OH)R₂- in which R₂ represents a substituted or unsubstituted aryl group, a group -CHR₃- in which R₃ represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted cyclic or acyclic acetal group;

when W represents C=, then m is 1 and B' is a group:

$$=$$
 R_4

5

in which the double bond is coupled with W and R_4 represents a substituted or unsubstituted aryl group or a substituted or unsubstituted aralkyl group; and

when W represents a nitrogen atom, then m is 0 or 1 and B' is a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group or a group -CHR $_5$ - in which R $_5$ represents a substituted or unsubstituted aryl group; and

D represents a substituted or unsubstituted aromatic hydrocarbon group or a substituted or unsubstituted aromatic heterocyclic group; and

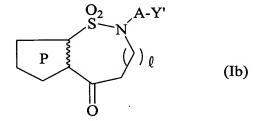
l is 0 or 1;

which process comprises:

reacting a compound of formula (VII) with a compound of formula (Ib), wherein the compound of formula (VII) is:

$$NH_2OR_1$$
 (VII)

wherein R₁ is defined above; and the compound of formula (Ib) is:



wherein the ring P, A, Y' and ℓ are defined above.

30. (New) A process for preparing a compound of formula (Id):

$$\begin{array}{c}
O_2 \\
N
\end{array}$$

$$\begin{array}{c}
A-Y' \\
OH
\end{array}$$
(Id)

wherein

the ring P is:



and is a pyrrole ring represented by the following structure:

in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

A is a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkenylene group or a substituted or unsubstituted alkynylene group;

Y' represents a group

$$W$$
— $(B')_{\overline{m}}$ D
 E_1 E_2

in which

E₁ and E₂ each independently is a hydrogen atom or a lower alkyl group;

W represents CH, C= or a nitrogen atom; with the provisos that:

when W represents CH, then m is 0 or 1 and B' represents a sulfonyl group, an alkylene group, an alkenylene group, a group -C(OH)R₂- in which R₂ represents a substituted or unsubstituted aryl group, a group -CHR₃- in which R₃ represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted cyclic or acyclic acetal group;

when W represents C=, then m is 1 and B' is a group:



in which the double bond is coupled with W and R₄ represents a substituted or unsubstituted aryl group or a substituted or unsubstituted aralkyl group; and

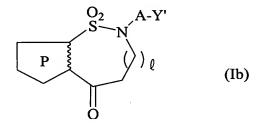
when W represents a nitrogen atom, then m is 0 or 1 and B' is a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group or a group -CHR $_5$ - in which R_5 represents a substituted or unsubstituted aryl group; and

D represents a substituted or unsubstituted aromatic hydrocarbon group or a substituted or unsubstituted aromatic heterocyclic group; and

ℓ is 0 or 1;

which process comprises:

reducing a compound of formula (Ib):



wherein the ring P, A, Y' and ℓ are defined above.

31 (New): A process for preparing a compound of formula (Ie):

$$\begin{array}{c}
O_2 \\
NOR_1
\end{array}$$
(Ie)

wherein

the ring P is: `



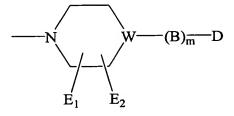
and is a pyrrole ring represented by the following structure:

in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

R₁ is a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, or a substituted or unsubstituted aryl group;

A is a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkynylene group;

Y is a group having the following formula:



in which

 E_1 and E_2 each independently is a hydrogen atom or a lower alkyl group;

W represents CH, C= or a nitrogen atom; with the provisos that:

when W represents CH, then m is 0 or 1 and B represents a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group, a group -C(OH)R₂- in which R₂ represents a substituted or unsubstituted aryl group, a group -CHR₃- in which R₃ represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted cyclic or acyclic acetal group;

when W represents C=, then m is 1 and B is a group:

$$=$$
 R_4

in which the double bond is coupled with W and R_4 represents a substituted or unsubstituted aryl group or a substituted or unsubstituted aralkyl group; and

when W represents a nitrogen atom, then m is 0 or 1 and B is a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group or a group -CHR5- in which R5 represents a substituted or unsubstituted aryl group; and

D represents a substituted or unsubstituted aromatic hydrocarbon group or a substituted or unsubstituted aromatic heterocyclic group; and

ℓ is 0 or 1;

which process comprises:

reacting a compound of formula (VII):

$$NH_2OR_1$$
 (VII)

wherein R_1 is defined above, with a compound of formula (IV):

$$\begin{array}{c}
O_2 \\
N \\
\end{array}$$

$$\begin{array}{c}
A-X \\
\end{array}$$

$$\begin{array}{c}
O \\
\end{array}$$

wherein X is an eliminative group, and the ring P, A and ℓ are defined above, thereby obtaining a compound represented by the following formula (VIII):

$$\begin{array}{c}
O_2 \\
S \\
N
\end{array}$$

$$\begin{array}{c}
A-X \\
\downarrow \\
NOR_1
\end{array}$$
(VIII)

wherein the ring P, R₁, A, X and ℓ are defined above; and then

reacting the compound of formula (VIII) with a nitrogen-containing compound of formula (V):

$$H-Y$$
 (V)

wherein Y is defined above.

32 (New) A process for preparing a compound of formula (If):

$$\begin{array}{c}
O_2 \\
S \\
N
\end{array}$$

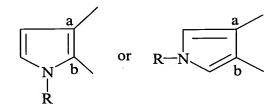
$$\begin{array}{c}
A-Y \\
OH
\end{array}$$
(If)

wherein

the ring P is:



and is a pyrrole ring represented by the following structure:



in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

A is a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkynylene group;

Y is a group having the following formula:

$$W$$
— $(B)_{\overline{m}}$ D

in which

 E_1 and E_2 each independently is a hydrogen atom or a lower alkyl group;

W represents CH, C= or a nitrogen atom; with the provisos that:

when W represents CH, then m is 0 or 1 and B represents a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group, a group -C(OH)R₂- in which R₂ represents a substituted or unsubstituted aryl group, a group -CHR₃- in which R₃ represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted cyclic or acyclic acetal group;

when W represents C=, then m is 1 and B is a group:

$$=$$
 R_4

in which the double bond is coupled with W and R_4 represents a substituted or unsubstituted aryl group or a substituted or unsubstituted aralkyl group; and

when W represents a nitrogen atom, then m is 0 or 1 and B is a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group or a group -CHR $_5$ - in which R $_5$ represents a substituted or unsubstituted aryl group; and

D represents a substituted or unsubstituted aromatic hydrocarbon group or a substituted or unsubstituted aromatic heterocyclic group; and

l is 0 or 1;

which process comprises:

reducing a compound of formula (IV):

$$\begin{array}{c}
O_2 \\
S \\
N
\end{array}$$

$$\begin{array}{c}
A-X \\
O\end{array}$$
(IV)

wherein X is an eliminative group, and the ring P, A and ℓ are defined above, thereby obtaining a compound of formula (IX):

$$\begin{array}{c}
O_2 \\
N
\end{array}$$

$$\begin{array}{c}
A-X \\
OH
\end{array}$$
(IX)

wherein the ring P, A, X and ℓ are defined above; and then

reacting the compound of formula (IX) with a nitrogen-containing compound represented by the following formula (V):

$$H-Y$$
 (V)

wherein Y is defined above.

33. (New) A process for preparing a compound of formula (Ig):

$$\begin{array}{c}
O_2 \\
S \\
N
\end{array}$$

$$\begin{array}{c}
A-Y \\
\emptyset \\
\end{array}$$
(Ig)

wherein

the ring P is:



and is a pyrrole ring represented by the following structure:

in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

A is a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkynylene group or a substituted or unsubstituted alkynylene group;

Y is a group having the following formula:

$$W$$
— $(B)_{\overline{m}}$ D

in which

E₁ and E₂ each independently is a hydrogen atom or a lower alkyl group;

W represents CH, C= or a nitrogen atom; with the provisos that:

when W represents CH, then m is 0 or 1 and B represents a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group, a group -C(OH)R₂- in which R₂ represents a substituted or unsubstituted aryl group, a group -CHR₃- in which R₃ represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted cyclic or acyclic acetal group;

when W represents C=, then m is 1 and B is a group:

$$=$$
 $\binom{R_4}{}$

in which the double bond is coupled with W and R₄ represents a substituted or unsubstituted aryl group or a substituted or unsubstituted aralkyl group; and

when W represents a nitrogen atom, then m is 0 or 1 and B is a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group or a group -CHR $_5$ - in which R_5 represents a substituted or unsubstituted aryl group; and

D represents a substituted or unsubstituted aromatic hydrocarbon group or a substituted or unsubstituted aromatic heterocyclic group; and

l is 0 or 1;

which process comprises:

subjecting to a dehydration treatment a compound of formula (IX):

$$\begin{array}{c}
O_2 \\
S \\
N
\end{array}$$

$$\begin{array}{c}
A-X \\
OH
\end{array}$$
(IX)

wherein the ring P, A, and ℓ are defined above, and X is an eliminative group, thereby obtaining a compound of formula (X):

$$\begin{array}{c}
O_2 \\
S \\
N
\end{array}$$

$$\begin{array}{c}
A-X \\
\emptyset
\end{array}$$

$$\begin{array}{c}
P \\
\emptyset
\end{array}$$

$$\begin{array}{c}
(X)
\end{array}$$

wherein the ring P, A, X and ℓ have the same meanings as defined above; and then reacting the compound of formula (X) with a nitrogen-containing compound of formula (V):

$$H-Y$$
 (V)

wherein Y is defined above.

34. (New) A process for the preparation of a pyrrolesulfonamide derivative represented by the following formula (Ig):

$$\begin{array}{c} O_2 \\ S \\ N \end{array} A-Y \\ O_{\ell} \\ O_{$$

wherein

the ring P is:

and is a pyrrole ring represented by the following structure:

in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

A is a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkenylene group or a substituted or unsubstituted alkynylene group;

Y is a group having the following formula:

$$W$$
— $(B)_{\overline{m}}$ D

in which

E₁ and E₂ each independently is a hydrogen atom or a lower alkyl group;

W represents CH, C= or a nitrogen atom; with the provisos that:

when W represents CH, then m is 0 or 1 and B represents a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group, a group $-C(OH)R_2$ - in which R_2 represents a

substituted or unsubstituted aryl group, a group -CHR₃- in which R₃ represents a substituted or unsubstituted aryl group, or a substituted or unsubstituted cyclic or acyclic acetal group;

when W represents C=, then m is 1 and B is a group:

$$=$$
 R_4

in which the double bond is coupled with W and R_4 represents a substituted or unsubstituted aryl group or a substituted or unsubstituted aralkyl group; and

when W represents a nitrogen atom, then m is 0 or 1 and B is a carbonyl group, a sulfonyl group, an alkylene group, an alkenylene group or a group -CHR5- in which R5 represents a substituted or unsubstituted aryl group; and

D represents a substituted or unsubstituted aromatic hydrocarbon group or a substituted or unsubstituted aromatic heterocyclic group; and

l is 0 or 1;

which process comprises:

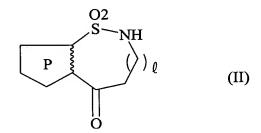
subjecting a compound of formula (If):

$$\begin{array}{c}
O_2 \\
N
\end{array}$$

$$\begin{array}{c}
A-Y \\
OH
\end{array}$$
(If)

wherein the ring P, A, Y and ℓ are defined above, to a dehydration treatment.

35. (New) A compound represented by the following formula (II):

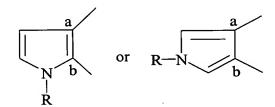


wherein

the ring P is:



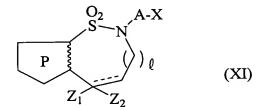
and is a pyrrole ring represented by the following structure:



in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group; and

ℓ is 0 or 1.

36. (New) A compound of formula (XI):



the ring P is:

and is a pyrrole ring represented by the following structure:

in which R is an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

 Z_1 is a hydrogen atom and Z_2 is not present when the bond represented by the dashed line is present, and Z_1 is hydrogen and Z_2 is hydroxyl when the bond represented by the dashed line is not present or Z_1 and Z_2 together to represent an oxygen atom or a group NOR₁, where R₁ is a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, or a substituted or unsubstituted aryl group;

A is a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkenylene group or a substituted or unsubstituted alkynylene group;

X is an eliminative group; and ℓ is 0 or 1.

37. (New) A process for preparing a compound of formula (IIa) or (IIa'):

$$\begin{array}{c|c}
O2 \\
S \\
NH \\
O
\end{array}$$
(IIa)
$$\begin{array}{c}
O2 \\
R \\
O
\end{array}$$
(IIa')

19

wherein R represents an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group and ℓ is 0 or 1;

which process comprises:

converting a 1-substituted-pyrrole-3-sulfonic acid or a salt thereof of formula (XII):

$$\begin{pmatrix}
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & & \\
 & &$$

wherein M represents a hydrogen ion, an alkali metal ion, an alkaline earth metal ion or a quaternary ammonium ion, p is 1 when M is a hydrogen ion, an alkali metal ion or a quaternary ammonium ion or p is 2 when M is an alkaline earth metal ion, q is 0 or 1, and R has the same meaning as defined above,

into a compound represented by formula (XIII):

wherein X" is a chlorine atom or a bromine atom;

thus causing glycine or β -alknine or a derivative thereof of formula (XIV):

$$NH_2(CH_2)_{\ell}CH_2COOR_6$$
 (XIV)

wherein R_6 represents a hydrogen atom or a carboxyl-protecting group, to act, thereby obtaining a compound of formula (XV):

$$\begin{array}{c|c}
O2 \\
S \\
NH \\
OOOR_6
\end{array}$$

$$\begin{array}{c}
(XV)
\end{array}$$

wherein R, R_6 and ℓ are defined above; and then subjecting said compound to ring closure.

38. (New) A process for preparing a compound of formula (IIa) or (IIa'):

$$(IIa) \qquad \qquad (IIa')$$

wherein

R represents an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group and

l is 0 or 1;

which process comprises:

reacting a compound of formula (XVIa) or (XVIb):

$$R-X'''$$
 (XVIa) (RO)₂SO₂ (XVIb)

wherein X" is an eliminative group and R is defined above,

with a compound of formula (IIb) or (IIb'):

wherein ℓ is defined above.

39. (New) A compound of formula (XV):

$$\begin{array}{c|c}
O2 \\
S \\
NH \\
\downarrow \\
COOR_6
\end{array}$$
(XV)

R represents an alkyl group, a cycloalkyl group, a cycloalkyl-alkyl group or a substituted or unsubstituted aralkyl group;

 R_6 represents a hydrogen atom or a carboxyl-protecting group; and ℓ is 0 or 1.